Indexes to Volume 18 (1986)

The subject index has been organized into eight topics for easy reference. When appropriate, papers have been listed under more than one heading.

Subject index

Fibres

Highly accurate numerical method for determination of propagation characteristics of dispersion-flattened fibres, 1
Far-field techniques for the characterization of single-mode fibres, 5
Effet de l'irradiation par des neutrons sur les characteristiques temporalles d'une fibre optique a gradient d'indice, 43
Hydrogen generation by materials related to submarine optical cables, 97
Optical frequency-domain reflectometry, 265
Broadband matrix switches: electro-optic or optoelectronic?, 273
Frequency-division multiplexing of optical-fibre sensors using a frequency-modulated source, 279
Range and accuracy in backscatter measurements, 291
Slow fluctuations of group delay and intensity of coherent optical signals in multimode optical fibres, 309
Simple approximation formulae for elliptical dielectric waveguides, 345
Fibre-grating pair pulse compression at 1.32 μm, 423
Planar Micro-optical demultiplexer for multimode optical transmission lines, 437
Excess noise suppression in a fibre-optic, balanced heterodyne detection system, 445

Waveguides and integrated optics

Synthesis of gaussian beam excited rectangular dielectric guide modes by ray theory, 73
Optimal designing of grating couplers for diffused waveguides in electro-optical crystals, 103
Diffraction characteristics of planar corrugated waveguides, 123
Analysis and optimization of integrated-optic travelling-wave modulators using periodic and non-periodic phase reversals, 203
Coupled wave analysis for a reflection dephased mixed hologram grating, 213
Light propagation in a planar dielectric slab waveguide with step discontinuities – Part 1 Operator formalism, 219
Light propagation in a planar dielectric slab waveguide with step discontinuities – Part 2 Numerical analysis of TE-polarized fields, 229.
Light propagation in a planar dielectric slab waveguide with step discontinuities – Part 3 TM-polarized fields, 239
Waveguide Bragg mirror with negative differential characteristics, 315
Simple approximation formulae for elliptical dielectric waveguides, 345
Tunable wavelength – selective asymmetrical single-mode fibre directional couplers with an intermediate layer, 365

Nonlinear optics

Hysterical and spectral behaviour of bistable cleaved coupled cavity semiconductor diode lasers, 35
Thermo-optic bistable devices: theory of operation in freestanding films, 57
Optimal designing of grating couplers for diffused waveguides in electro-optical crystals, 103
Coherent forward four-wave mixing of ultrashort radiation pulses in a resonant medium, 129
Power limiting and optical switching with nematic liquid crystal films, 312
Theoretical analysis of non-thermal pump effects in broadband CARS spectroscopy, 319
Frequency-doubling PFM system to prolong the distance of optical fibre TV programme transmission, 375
S_0–S_n Two-photon absorption dynamics of rhodamine dyes, 381
Fibre-grating pair pulse compression at 1.32 μm, 423

Lasers

Spectral evolution of a flashlamp-pumped untuned dye laser, 29
Hysterical and spectral behaviour of bistable cleaved coupled cavity semiconductor diode lasers, 35
Generation of r.f. and microwave signals from low-frequency square-wave modulation of laser diode, 93
Self-diffraction of CO-laser radiation in SF, 115
Effects of excited-state absorption and stimulated emission in UV dyes on the shortening of laser pulses interacting with saturable absorbers, 137
Pulse-shape determination of intracavity compressed picosecond pulses by two-photon fluorescence analysis, 145
Temporal compression of Nd:YAG pulses using chirp compensation, 171

Stimulated emission in thallium iodide vapour pumped with an ArF flashlamp, 179
Nonlinear light–current characteristics of narrow stripe geometry lasers, 249
Investigation of the output parameters of a 4.3 μm longitudinal-discharge CO_2 laser, 329
Natural linewidth of anisotropic lasers, 335
S_0–S_n Two-photon absorption dynamics of rhodamine dyes, 381
GaInAsP/InP surface emitting diode, 403
Gain and absorption of an X-ray preionized XeCl discharge laser at high gas pressures, 431
High-current regime of the helical hollow cathode Ne–TlCl and He–Kr lasers, 455

Short pulses
Coherent forward four-wave mixing of ultrashort radiation pulses in a resonant medium, 129
Effects of excited-state absorption and stimulated emission in UV dyes on the shortening of laser pulses interacting with saturable absorbers, 137
Pulse-shape determination of intracavity compressed picosecond pulses by two-photon fluorescence analysis, 145
Temporal compression of Nd:YAG pulses using chirp compensation, 171

Holography and classical optics
Incoherent light propagation over a folded path in the turbulent atmosphere, 23
Highly sensitive fluorescence microscope system for single biological cell using laser excitation and digital image processing and display, 81
Coupled wave analysis for a reflection dephased mixed hologram grating, 213
Density-matrix formalism for partially coherent optical fields propagating in slightly inhomogeneous media, 253
Excess noise suppression in a fibre-optic balanced heterodyne detection system, 445

Optical communication systems
Efficient capacity for a PPM weak noisy photon-counting channel, 49
A novel InGaAs PIN photodiode on semi-insulating InP, 175
Performance of fractional tap-spacing equalizers for long-haul high-capacity digital fibre-optic communication systems, 189
Broadband matrix switches: electro-optic or optoelectronic? 273
Multiport homodyne detection near the quantum noise limit, 355
Frequency-doubling PFM system to prolong the distance of optical fibre TV programme transmission, 375
Planar micro-optical demultiplexer for multimode optical transmission lines, 437

Liquid crystals
Power limiting and optical switching with nematic liquid crystal films, 312
Novel optical cell design for liquid crystal devices providing sub-millisecond switching, 426

Author index

AFANAS'EV, A. A., 129
APANASEVICH, P. A., 129
ARNAUD, J., 335
ARORA, K., 93

BARRAUD, J. -Y., 97
BASURAY, A., 73
BÄTTIG, R., 445
BENDJABALLAH, C., 49
BERSINER, L., 437
BIEHLIG, W., 219, 229, 239
BOLOTSKIKH, L. T., 115
BRADLEY, D. J., 35

CALVO, M. L., 213
CARROLL, J. E., 355
CASADEVALL, F., 189
CASPERSON, L. W., 155
CHARBIT, M., 49
CHEVALIER, D., 97
CHRISTOV, CH. G., 137
CIPPARRONE, G., 312

DATTA, A. K., 73
DÄTWYLER, M., 179
DAVIS, D. E. N., 93
DRAJEV, M., 85, 309
DRITZ, V. V., 129
ECONOMOV, G., 93
ERASME, D., 203
ETZKORN, H., 1

FAN, C., 175
FRENCH, P. M. W., 171

GE, H. -A., 375
GHAFOORI-SHIRAZ, H., 265
GOLUBENKO, G. A., 123
GOMES, A. S. L., 171, 423
GOUVEIA-NETO, A. S., 171
GROZEVA, M., 455
GUERRA, J. M., 29
GUIBELALDE, E., 213

HABERMAYER, I., 249
HALL, R. J., 319
HALLEY, J. M., 57
HEHL, K., 219
HENCHOZ, P. -D., 445
HEUN, T., 1
HOLEJKO, K., 183
HRISTOV, L., 85, 309
HULLETT, J. L., 291
HOWARD, R. M., 291

IGA, K., 403
INABA, H., 81
IPARRAGUIRRE, I., 29
ITO, H., 81

JÁNOSSY, M., 455
JEFFERY, R. D., 291
JOCTEUR, R., 97

KAN, J. -X., 375
KASAI, M., 81
KRIVOSHLYKOV, S.G., 253

LAM, D. K. W., 273
LANGBEIN, U., 219
LASNE, C., 97
LEDERER, F., 219
LEMINGER, O., 365
LI, Y. -L., 375
LIN, S. C., 175
LO, D., 431
LÜTHY, W., 179

MACDONALD, R. I., 273
MASHEV, L., 123
McWRIGHT, G. M., 89
MIDWINTER, J. E., 57
MURE-RAVAUD, A., 43

NOWAK, R., 183

OKOSHI, T., 265

PARRY, G., 426
PASTOR, J., 189
PENZKOFER, A., 145, 381
PETROV, N. I., 253
PHELAN, P., 35
POPKOV, V. G., 115
POPOV, A. K., 115
POPOV, E., 123

REEKIE, L., 35
ROUGNY, R., 43
RUND, D., 437

SABOTINOV, N., 455
SAKAI, I., 279
SAMSON, B. A., 129
SAMSON, P. J., 5
SARKAR, S. K., 73
SATO, S. -I., 81
SAUNDERS, F. G., 426
SEN, T. K., 73
SHALAEV, V. M., 115
SIMONI, F., 312
SISSAKIAN, I. N., 253
SIUZDAK, J., 23
SKINNER, I. M., 345
SOLODUKHIN, A. S., 329
SPERBER, P., 145, 381
SPIKHAL'SKII, A. A. 103, 315
STALLARD, W. A., 35
STIERLIN, R., 445
STOYKOV, V., 85, 309
SVAKHIN, A. S., 123
SYCHUGOV, V. A., 123

TAGUCHI, Y., 81
TAYLOR, J. R., 171, 423
TISCHENKO, A. V., 123
TOMOV, I. V., 137
TRUSHIN, S. A., 329

UCHIYAMA, S., 403
UMETON, C., 312

WÄCHTER, CH., 239
WALKER, N. G., 355
WEBER, H. P., 179, 445
WILSON, M. G. F., 203

YU, P. K. L., 175

ZENGERLE, R., 365
ZHENG, C. -E., 431